PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
DOCKET NO. 2004-1-E
DIRECT TESTIMONY OF
PROGRESS ENERGY CAROLINAS, INC.

WITNESS RONNIE M. COATS

Q. Mr. Coats will you please state your full name, occupation, and address?

A. My name is Ronnie M. Coats. I am employed by Progress Energy Carolinas, Inc. as Senior Fuels Coordinator in the System Planning and Operations Department. My business address is 410 South Wilmington St, Raleigh, North Carolina.

Q. Please summarize briefly your educational background and experience.

A. I graduated from North Carolina State University in 1967 with a B.S. Degree in Chemical Engineering. I also obtained a Master of Business Administration Degree from the University of North Carolina at Chapel Hill in 1989. I am a member of the American Institute of Chemical Engineers (AIChE) and Professional Engineers of North Carolina (PENC). I am a registered Professional Engineer in the state of North Carolina and South Carolina. I joined the Company in 1968 and have held several engineering and management positions related to the design, construction, and operation of generating plants. These include: Principal Engineer, Manager of Generation Services, and Manager-Environmental Compliance. In December 2001, I assumed the position of Senior Fuels Coordinator in the System Resource Planning Section of Progress Energy Carolinas, Inc. System Planning and Operations Department. In my current position, I am responsible for maintaining an oversight of fuel planning and procurement activities related to the Company's

regulated fleet to ensure that a reliable and economical supply of fuel is available to meet the operating requirements of the regulated generating facilities.

Q. What is the purpose of your testimony here today?

A. The purpose of my testimony is to review the operating performance of the Company's generating facilities during the period of January 1, 2003 through December 31, 2003 and the expected operating performance of the nuclear units for the projected period April 1, 2004 to March 31, 2005.

Q. Describe the types of generating facilities owned and operated by the Company.

A. The Company owns and operates a diverse mix of generating facilities consisting of hydro facilities, combustion turbines, combined cycle facilities, fossil steam generating facilities, and nuclear plants.

Q. Why does the Company utilize such a diverse mix of generating facilities?

A. Each type of facility has different operating and installation costs and is generally intended to meet a certain type of loading situation. In combination, the diversity of the system, in conjunction with power purchases made when doing so is more cost-effective than using a Company owned generating unit, allows the Company to meet the continuously changing customer load pattern in a reasonable, cost-effective manner. The combustion turbines, which have relatively low installation costs but higher operating costs, are intended to be operated infrequently. They also provide resources that can be started in a relatively short time for emergency situations. In contrast, the large coal and nuclear steam generating plants have relatively high installation costs with lower operating costs, and are intended to

operate in a manner to meet the constant level of demand on the system. Based on the load level that the Company is called on to serve at any given point in time, the Company selects the combination of facilities which will produce electricity in the most economical manner, giving due regard to reliability of service and safety. This approach provides for overall minimization of the total cost of providing service.

Q. Please elaborate on the intended use of each type of facility the Company uses to generate electricity.

A. As a general rule, peaking resources such as combustion turbines, are constructed with the intention of running them very infrequently, i.e., only during peak or emergency conditions. Therefore, as a rule, they have a very low capacity factor, generally less than 10%. Because combustion turbines can be started quickly in response to a sharp increase in customer demand, without having to continuously operate the units, they are very effective in providing reserve capacity. Intermediate facilities are intended to operate more frequently and are subject to daily load variations. Because these facilities take some time to come from a cold shut down situation, they are best utilized to respond to the more predictable system load patterns. Additionally, these plants, located across the Company's service territory, contribute to overall system reliability. As a rule, they operate with capacity factors in the range of 20% to 60%. The Company's intermediate facilities are predominately older coal plants and combined cycle units. Baseload facilities are intended and designed to operate on a near continuous basis with the exception of outages for required maintenance, modifications, repairs, major overhauls, or for refueling in the case of nuclear plants. These plants are traditionally called on to

operate in the 60% and greater capacity factor range. The Company's four nuclear units and four larger coal units constitute the Company's baseload facilities.

Q. Were there any increases in your generating capability during 2003?

A. Yes. During the Brunswick 2 Spring 2003 refueling outage, modifications were completed on the first phase of a power uprate project. After testing and performance observations during the year, the Maximum Dependable Capacity of Brunswick 2 was increased by 89 megawatts effective January 1, 2004. This brings the net rating of the unit to 900 megawatts.

Q. How does the Company ensure that it operates these three types of generating facilities as economically as possible?

A. The Company has a central Energy Control Center which monitors the electricity demands within our service area. The Energy Control Center regulates and dispatches available generating units in response to customer demand. Sophisticated computer control systems match the changing load with available sources of power. Personnel at the Energy Control Center, in addition to being in contact with the Company's generating plants, are also in communication with other utilities bordering our service territory. In the event a plant is suddenly forced off-line, the interconnections with neighboring utilities help to ensure that service to our customers will go uninterrupted. Additionally, the interconnections allow us access to the unloaded capacity of neighboring utilities so that our customers will be served by the lowest cost power available through inter-utility purchases.

Q. How does the Company determine when it needs to purchase power?

A. The Company is constantly reviewing the power markets for purchase opportunities. We buy when there is reliable capacity available that is less expensive than the resources we currently have or are considering building. This is done on an hourly, daily, weekly, monthly, yearly, and multi-year basis.

Q. When all available facilities are operating and more power is needed, what happens?

A. There are several courses of action that could be taken. One is to go to the power markets for purchase opportunities. A second is to call on reserves from neighboring utilities. The Company participates in the VACAR reserve sharing group. VACAR is made up of several utilities in Virginia and the Carolinas. Each member of the group maintains a reserve of capacity that may be called on and scheduled to another member that is in need. If there is absolutely no power available, the only action remaining is to reduce the demand on the system to maintain the integrity of the interconnection. This is accomplished through the General Load Reduction Plan (GLRP). The plan begins with voltage reduction and customer appeals, progresses to interrupting curtaillable industrial customers and then to rotating outages. The Company makes every effort to avoid implementation of the GLRP by maintaining adequate reserves levels and maintaining the generation fleet for reliable operation.

Q. During the review period January 1, 2003 through December 31, 2003, did the Company prudently operate its generating system within the guidelines discussed in regard to the three types of facilities?

A. Yes. Two different measures are utilized to evaluate the performance of generating facilities. They are equivalent availability factor and capacity factor. Equivalent availability factor refers to the percent of a given time a facility was available to operate at full power if needed. Capacity factor measures the generation a facility actually produces against the amount of generation that theoretically could be produced in a given time period, based on its maximum dependable capacity. Equivalent availability factor describes how well a facility was operated, even in cases where the unit was used in a load following application. Our combustion turbines (including the Richmond County Combined Cycle Unit) averaged 94% equivalent availability for the twelve-month review period ending in December 2003, and 4.1% capacity factor indicating that they were almost always available for use but operated minimally. This is consistent with their intended purpose. Our intermediate (or cycling) coal fired units, had an average equivalent availability factor of 94% and a capacity factor of 60.5%, again indicative of good performance and management. Our fossil baseload units had an average equivalent availability of 91.5% and a capacity factor of 67.4%. Thus, the fossil baseload units were also well managed and operated. The Company's nuclear generation system achieved a net capacity factor of 98.5% for the twelve-month review period. Excluding outage time associated with reasonable outages, such as refueling, the nuclear generation system's net capacity factor rises to approximately 104.4%. Therefore, pursuant to S.C. Code Ann. § 58-27-865(F), since the adjusted capacity factor exceeds 92.5%, the Company is presumed to have made every reasonable effort to minimize the cost associated with the operation of its nuclear generation system.

Q. How did the Company's nuclear production in 2003 compare to previous years?

A. 2003 was a record-setting year for the Company's nuclear fleet from several perspectives. In total generation, our nuclear plants provided over 28.4 million megawatt-hours, surpassing the previous annual high of 27.2 million megawatt-hours set in 2002. This level of generation accounted for 47% of our system generation. Both our Brunswick and Robinson Nuclear Plants set new generation records during 2003. Our Brunswick units generated over 14.7 million megawatt-hours and the Robinson nuclear unit generated over 6.4 million megawatt-hours. The Brunswick 2 refueling outage was completed in 29 days. Major work during the outage included replacement of the high pressure turbine and reactor feed pump turbine rotors. This work was an integral part of the power uprate project previously mentioned. The Robinson nuclear unit was connected to the grid for the entire year. At Harris, the 2003 refueling outage was completed in 22 days. This represented a new record for the shortest duration refueling outage for our nuclear fleet, and placed in the top quartile in the industry for outage duration.

Q. You have not specifically addressed the performance of the Company's hydro units. Please discuss their performance.

A. The usage of the hydro facilities on the Company's system is limited by the availability of water that can be released through the turbine generators. The Company's hydro plants have very limited ponding capacity for water storage. The Company operates the hydro plants to obtain the maximum generation from them; but because of the small water storage capacity available, the hydro units have been

primarily utilized for peaking and regulating purposes. This maximizes the economic benefit of the units. For the review period, the hydro units had an equivalent availability of 97% and operated at a capacity factor of 49.8%.

Q. How did the Company's fossil units perform as compared to the industry?

A. Our fossil steam system operated well during this review period, achieving an equivalent availability of 92.7%. This exceeds the most recently published NERC average equivalent availability for coal plants of 84.3%. The NERC average covers the period 1998-2002 and represents the performance of 917 units. Equivalent availability is a more meaningful measure of performance for coal plants than capacity factor because the output of our fossil units varies significantly depending on the level of system load. Our larger fossil units, Roxboro Units 2, 3, and 4 and Mayo Unit 1, operated at equivalent availabilities of 88%, 94%, 97%, and 87%, respectively. As I mentioned earlier, the baseload coal units achieved an average equivalent availability of 91.5%.

Q: How did the performance of the Company's nuclear system compare to the industry average?

A: During the period January 1, 2003 through December 31, 2003, the Company's pressurized water reactors ("PWRs"), Robinson Unit 2 and Harris Unit 1, achieved capacity factors of 103.5% and 91.8%, respectively. On average, these nuclear units operated at an 97% capacity factor during the test period. In contrast, the NERC five-year average capacity factor for 1998-2002 for all commercial PWRs in North America was 86.4%. Brunswick Units 1 and 2, which are both boiling water reactors ("BWRs"), achieved capacity factors of 100.8% and 98.9%, with an

average of 99.9% for the entire plant. The NERC five-year capacity factor average for 1998-2002 for all BWRs was 85.7%. The Company's nuclear system incurred a 1.2% forced outage rate during the test period compared to the industry average of 5.1%.

Q. Are you presenting any exhibits with your testimony?

A. Yes. Coats Exhibit No. 1 is a graphic representation of the Company's generation system operation for the twelve-month review period.

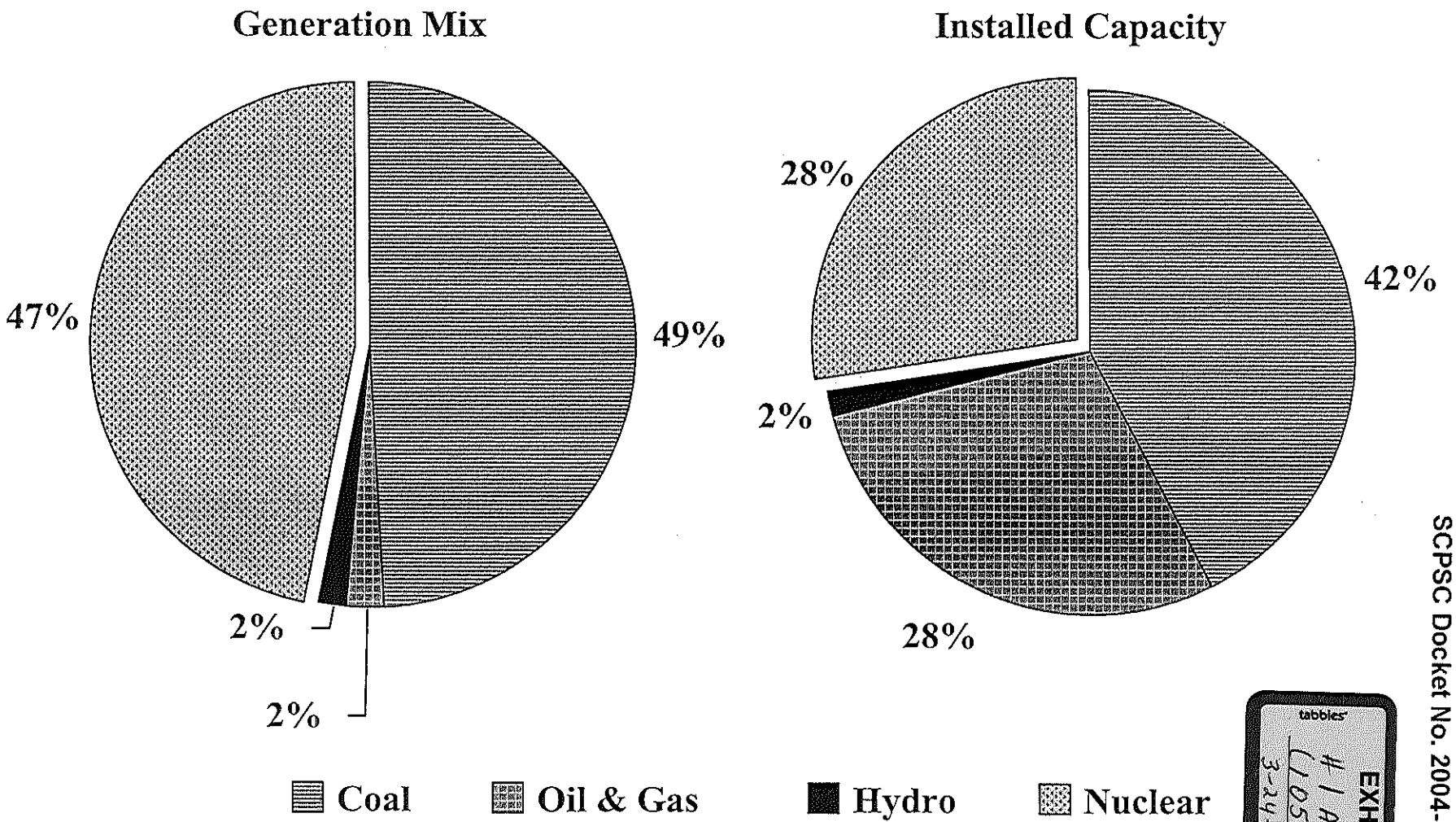
Q. Please describe the projected performance of the Company's nuclear system for the time period April 1, 2004 through March 31, 2005.

A. Including the impact of planned refueling outages, I project that the Company's nuclear units will achieve an average net capacity factor of 94.7% during this period.

Q. Does this conclude your testimony?

A. Yes.

Comparison of Progress Energy Carolinas
Installed Generating Capacity
to Actual Generation Mix
January through December 2003



EXHIBIT
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COATS EXHIBIT NO. 1
SCPSC Docket No. 2004-1-E